

Female Genital Mutilation as a Socio-Cultural Determinant of Infant and Maternal Mortality in Delta State

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Abstract: Female genital mutilation is still strongly supported and done in some communities in Delta State despite the campaign against it. This is because of the sociocultural factors that support this practise. Determinants of female genital mutilation in Delta State's rural and urban populations are therefore examined in this paper in terms of sociocultural factors. The study made use of cognitive dissonance theory. The use of both a questionnaire and an extensive interview schedule was part of a mixed technique study. Using the Yamane sample size calculation, 400 people were chosen as the study's sample. The study's participants were chosen using a multi-stage sampling technique. To test the study's hypotheses, the Pearson Product Moment Correlation method was employed. According to the study, female genital mutilation practise complicates childbirth for both mother and baby. This is due to poor hymen cutting, which makes it more likely for the mother and child to get infectious infections as a result and put their health at danger. According to the study, female genital mutilation should be discouraged through education and increased anti-mutilation campaigns.

Keywords: Female, Genital, Mutilation, Socio-Cultural, Determinant, Infant, Maternal, Mortality, Delta State.

Introduction

The risk of baby and maternal mortality is increased by ingrained family customs, traditional rituals, and cultural views about introducing females. FGM is another widespread societal practise that affects women's and girls' baby and maternal health outcomes. Female circumcision, a form of FGM, is more common in the Southeast (49%) and Southwest (47.5%) of Nigeria than in the Northeast (2.9%) and Northwest (20.7%), respectively (Mberu, 2017; 28TOOMANY, 2016). The "angurya" and "gishiri" cuts (type IV) are the most prevalent types of FGM in northern Nigeria, whilst Types I - III predominate in the southern regions (Mberu, 2017; 28TOOMANY, 2016). Hence, for safer newborn and maternal health outcomes, it is crucial to have a comprehensive awareness of such underlying, generational attitudes and practises (Chukuezi, 2010; Esienumoh et al., 2016; Evans, 2013; Lang-Balde & Amerson, 2018; Marchie & Anyanwu, 2009; Odekunle, 2016; Ogu et al., 2016).

In Nigeria, where it is thought to hold societal values to the house after marriage, female genital

mutilation is a fairly common religious and cultural practise. Several women have been exposed by this practise to the risks of childbirth and health issues like sepsis and bleeding. It exposes women to infections that seriously harm their health. Also, women's low levels of education have an impact on their ability for decision-making and awareness of the importance of seeking out adequate health care for both herself and their offspring. Because she will not only be monetarily crippled but also unable to make decisions for herself and her family, an uneducated woman's prospects of having access to good health care are harmed. The majority of mothers and their babies pass away as a result of decisions they made based on information about health difficulties that was not in accordance with accepted medical procedures from friends, husbands, and relatives. This study, which is based on the aforementioned issue, looks at female genital mutilation as a sociocultural factor influencing baby and mother mortality in Delta State. The research's main goal is to

1. Consider child and maternal mortality, female genital mutilation.
2. Evaluate the relationship between religious beliefs and female genital mutilation practices

Research Hypotheses

1. Infant and mother mortality are not significantly correlated with female genital mutilation.
2. Religious affiliation and the practise of female genital mutilation are not significantly related.

Literature Review

Overview of Infant and Maternal Mortality

A society with access to education is better able to recognise and prevent situations that increase health risks. According to the World Health Organization (WHO, 2006), maternal death is the death of a woman while she is pregnant or within 42 days of the termination of her pregnancy, regardless of the length and size of the pregnancy, from any cause connected to or made worse by the pregnancy or its management, but not from accidents or accidental causes. Contrarily, infant mortality refers to a child's passing before the age of one. In general, labour is a joyful occasion to celebrate, but for some women, their joy is cut short by stillbirth or infant mortality, this is not the case. An essential gauge of a country's health care delivery system and the stage of social development is the state of maternal, newborn, and child health (Onoka, 2010). The MDG targets by 2015 are clearly unachievable with present tactics alone, as previous attempts to reduce maternal and infant mortality in Nigeria in accordance with the MDGs have only seen minor decreases in the last five years.

In a study conducted in 2000, Mayer and Sarin found that children with illiterate moms had mortality rates that were significantly higher than those with high school diploma-holding mothers. Hao (1990) took a similar stance, concurring that the child death rate is inversely correlated with parents' educational attainment, particularly that of the mother. Among all the factors he looked at, he came to the conclusion that the education of the mother had the biggest impact on lowering infant mortality. In their work, Mesike and Mojekwu (2012) estimated the levels and trends of mortality in Nigeria using indirect approaches. According to the findings, the availability of sanitary facilities and sources of drinking water are important indicators of child mortality. Mondal (2009) found that infant mortality rate continues to be a function of an environmental factor, namely source of drinking water, and a child care behaviour factor, where the child was kept when mother was at work, in her study to determine the relative significance of environmental and maternal factors on childhood mortality in south western Nigeria.

Using Nigeria as a case study, Olusegun (2012) investigated the unacceptable high rates of maternal and newborn death in Africa. The study identified poverty and hunger as a major factor in maternal and newborn mortality. Poor socioeconomic development, a shoddy healthcare system, and sociocultural hurdles are among the factors the report claims are linked to these issues. Similar research was conducted by Uthman (2008) on the connection between multiple births and infant mortality. The study's findings indicate that, when all other characteristics were

held constant, infants born in multiple births had a greater than twofold increased risk of dying in infancy.

Female Genital Mutilation and its Influence on Infant and Maternal Mortality

Contrary to those of women who had not, deliveries of women who had undergone genital mutilation were much more likely to be complicated by caesarean section, postpartum haemorrhage, and prolonged maternal hospitalisation. A caesarean section delivery was 30% more likely to occur in women who had experienced type III genital mutilation, the most severe type, compared to women who had not. Comparatively to women who had not undergone genital mutilation, women with type III mutilation had a 70% higher risk of postpartum haemorrhage. The percentage of first-time mothers who required an episiotomy ranged from 41% of those who underwent type III genital mutilation to 88% of those who did not. The percentages were 14% and 61%, respectively, among pregnant women with prior births.

Infants born to genital mutilated women had higher rates of infant resuscitation and perinatal death than infants born to mothers who had not undergone genital mutilation, and the severity of the unfavourable outcomes grew as the severity of female genital mutilation did. As a result, the rate of resuscitation was 66% higher in type III mutilated women's newborns than in mothers who had not undergone female genital mutilation. Infant mortality rates were 15% higher for women with type I genital mutilation, 32% higher for type II genital mutilation, and 55% higher for type III, compared to infants born to mothers without genital mutilation.

Female circumcision, also known as female genital mutilation or cutting (FGM/C), is an act in which the external female genitalia are completely or partially removed, or any other known injury to the female genital organs is caused for reasons other than therapeutic ones. Medical professionals have condemned this practise and deemed it to have no known medical benefits (Ogah, Kolawole, & Awelimobor, 2019). The annual cutting of millions of other girls from Sub-Saharan African, Middle Eastern, and Asian nations has been denounced by international health organisations as a violation of the reproductive and basic human rights of girls. The use of contaminated instruments during FGM/C frequently results in severe bleeding, which exposes the victim to the hepatitis B virus (HBV), the human immunodeficiency virus (HIV), the human papilloma virus (HPV), and other sexually transmitted illnesses (Ogah, Kolawole, & Awelimobor, 2019). In addition to these negative effects, FGM/C can cause cysts, issues during childbirth, sexual dysfunction, and stillbirth (Millet et al., 2019). FGM/C survivors are more likely to experience depression and other mental health issues (Piroozi et al., 2020). Between 0 and 15 years old is the most dangerous age range, and 29 countries are the most common. In the Additional Data, a list of the nations is provided. Girls in developed nations and immigrant families whose parents prepared for their female children to return home for the exercise are also at risk (Kawous et al., 2020).

Due to the possibility that the nations accepting the immigrants may lack the specialised expertise required to manage FGM/C, these constitute a major issue (Jordal & Wahlberg, 2018). Traditional circumcisers are required to perform the practise by their local communities (Biglu, Farnam, Abotalebi, Biglu, & Ghavami, 2016). A skilled medical professional may be hired occasionally to do the procedure, which they claim is safer (medicalization of FGM/C). It is not advised to perform either conventional or medicalized operations, nor is it justified to switch from traditional to medicalized circumcision. There are four distinct forms of FGM/C, but their effects on health are essentially the same. Although the trend is downward, the prevalence may not accurately reflect the situation because FGM/C is typically performed covertly because it has been made illegal; hence, many cases—particularly in rural and remote areas—remain unreported and unhidden (Odukogbe, Afolabi, Bello & Adeyanju, 2017). This explains the differences between the prevalence of FGM/C in rural and urban settings in the countries where it is most prevalent, which are in Africa, the Middle East, and Asia (Ali, Arafa, El Fattah, Abd Allah Shehata, & Fahim, 2018). As a result, the regional prevalence of FGM/C in a nation may be higher than the national prevalence. Racial and ethnic disparities exist in the prevalence in addition to geographic ones.

The Practice of Female Genital Mutilation and Religious Beliefs

The primary predictors of FGM/C include cultural, religious, and social factors (Ahmed, Shabu & Shabila, 2019; Ida & Saud, 2020). Hence, the practise is viewed as a method of developing and upholding religious commitments. It is considered a violation of the cultural norm to depart from the practise. However, in order to not appear as rebellious to the existing rules and procedures, the practise connected female sexuality to cultural norms and/or religious laws to be followed. Significant correlations exist between the occurrence of FGM/C and maternal education, occupation, early marriage, poverty, and the condition of healthcare facilities. The greatest predictor of FGM/C seems to be the mother's educational level (Abdulah, Sedo & Dawson, 2019). The act's supporters assert that it preserves sexual chastity, purity, undivided devotion, modesty, and aids in lowering adultery and sexual promiscuity. There are no religious scriptures that can support the assertions that the process is backed by religion. In Nigeria, FGM/C is common and accepted as a way to reduce libido and so regulate female sexuality (Chai, Sano, Kansanga, Baada & Antabe, 2017). Regrettably, it is a deliberate attempt to restrict female sexuality that has a strong foundation in gender inequity (most of the prevalent countries are viewed as patriarchal societies because of culture and religion). The physiological and psychological effects of female genital mutilation can be lessened with some treatments, including reconstructive surgery and deinfibulation.

The effects of FGM are still being felt by between 100 and 140 million girls and women globally today (WHO, 2010). Over 3 million girls in Africa are at danger of FGM each year (WHO, 2010). The frequency of FGM has hardly decreased overall despite the increased worldwide and minimal national attention (Yoder & Khan, 2017). For girls and women, the surgery has no positive health effects. Adverse consequences of FGM are shock from pain and haemorrhage (Verzin, 2015) infection, acute urinary retention following such trauma, damage to the urethra or anus in the struggle of the victim during the procedure making the extent of the operation dictated in many cases by chance, (Hathout, 2016) chronic pelvic infection, acquired gynatresia resulting in hematocolpos, vulval adhesions, dysmenorrhea, retention cysts, and sexual difficulties with anorgasmia. Additional issues include keloids, dermoid cysts, and implantation, as well as sexual dysfunction (Verzin, 2015; Hathout, 2016).

Perineal abrasions and the inevitable requirement for an episiotomy in patients with infibulated paturients are examples of obstetric complications. Others include defibulation with haemorrhage, urethral and bladder injuries, (Verzin, 2015) rectus injuries, and purpuric sepsis. FGM has been linked to higher neonatal morbidity and mortality, protracted labour, delayed 2nd stage, obstructed labour leading to fistula formation, and prolonged labour (Verzin, 2015). Because the issue does not appear externally for assistance to be provided, the mental and psychological suffering associated with FGM is thought to be the most important complication. The young girl is constantly terrified of the ceremony, and after it, she fears having sex because of the agony she anticipates, and she fears giving birth because of the issues FGM has brought on. Such girls might not complain, but they may turn icy and reclusive, which causes marital discord (Odoi, 2015).

In Nigeria, the south-south has the highest prevalence of FGM (among adult women) (77%), followed by the south east (68%) and the south west (65%), although the north paradoxically has a lower prevalence and a tendency towards more extensive FGM. There are 150 million people living in Nigeria, and 52% of them are women (Adegoke, 2005). 41% of adult women in the country have undergone FGM. The prevalence rates gradually decrease among youthful age groups, and 37% of circumcised women oppose the continuation of FGM (UNICEF, 2013). FGM is not desired by 61% of women, who cite it as a negative, damaging tradition and 22% as being against religion. Other explanations included health issues (22%), a traumatic personal experience (10%), and the belief that FGM is inhumane to women (10%). (UNICEF, 2013). In locations where the practise is strongly ingrained in local tradition, there is still a lot of support for it (UNICEF, 2013).

There are other sociocultural factors that have been identified as encouraging this dangerous habit. Grandmothers, mothers, women, opinion leaders, men, and age groups continue to play crucial decision-making roles in Nigerian society, which is still firmly ingrained with FGM (WHO, 2017). An extreme case of sex-based prejudice is FGM. The practise is strongly linked to girls' marriageability and is frequently used as a means of controlling women's sexuality. In order to prevent their daughters from being humiliated, abused, or shunned, mothers decided to submit them to the practise (Yoder & Khan, 2017; UNICEF, 2013). FGM was usually a specialty of traditional leaders' birth attendants or other members of the community with a reputation for the practise. Yet, the "medicalization" phenomena has allowed for the entry of contemporary healthcare providers and community health workers into the field (WHO, 2007). WHO has cautioned against institutionalising FGM and against any type of FGM being carried out by a health professional in any environment, including hospitals or the home. WHO is adamantly opposed to this medicalization (WHO, 2007).

There are clear geographical variances in FGM prevalence across Nigeria's zones, even though around a quarter of women and girls nationwide have had the procedure. FGM prevalence varies greatly among Nigeria's six zones and 36 states, ranging from 49% (of women aged 15 to 49) in the South East Zone to 2.9% in the North East Zone and from 76.6% in Osun State (in the South West Zone) to 0.1% in Katsina State (in the North West Zone) (Demographic Health Survey, DHS, 2013, p.349). Nigeria is divided into six zones and 36 states. In Nigeria, rural areas are home to 57% of the country's population. With 30% of Nigeria's population concentrated in the North West Zone, FGM prevalence there averages 20.7%. (DHS 2013, p. 32). Cutting is commonly believed that FGM is more likely to occur in rural settings, where social standards are more powerful and community bonds and traditions are stronger. FGM has been performed on 32.3% of Nigerian women between the ages of 15 and 49 who live in urban areas, as opposed to 19.3% of those in rural areas, according to the DHS (2013, p. 349). However, a woman may have relocated since having FGM, especially if she was cut when she was a little child, therefore prevalence by current location may not be a reliable indicator. Because of this, it is more beneficial to examine prevalence among young females in relation to their area of residence (UNICEF, 2013, p.37). FGM is more common in Nigerian women who follow orthodox religions (34.8%) than it is in Muslim women (20.1%). Catholics are more likely to experience it (31.4%) than other Christians are (29.3%). (DHS 2013, p. 349). Yet, FGM is more likely to occur in Muslim girls before the age of five (DHS 2013, pp. 352 and 354).

Research Methods

In-depth interviews and a questionnaire were both used in the study's mixed research methodology. From the study's population, a sample of 399 people was taken using Taro Yamane's sample size formula. The respondents who took part in the survey were chosen using a multi-stage sampling procedure. The study population included the Abraka, Obiaruku, and Uzere peoples. The study's data were analysed using the mean and Pearson Product Moment Correlation. The level of agreement or disagreement among the respondents to the study instrument's items was expressed by the mean. Hypotheses were tested using the Pearson Product Moment Correlation (PPMC).

Results/Findings

Table 4.1: The Respondents' Socio-Demographic Profiles

		Frequency	Percentage
Sex	Male	84	23.7%
	Female	270	76.3%
	Total	354	100.0
Age	18-28	148	42.0%
	29-39	123	35.0%
	40 years and above	19	5.0%

	Total	354	100.0
Marital Status	Single	209	59.0%
	Married	101	29.0%
	Divorced	44	12.0%
	Total	354	100.0
Educational Qualification	Primary education	143	40.4%
	Secondary education	161	45.5%
	Higher education	50	14.1%
	Total	354	100.0
Religion	Christian	281	79.4%
	Muslim	55	15.5%
	African Traditional Religion	18	5.1%
	Total	354	100.0%
Occupation	Unemployed	198	56.0%
	Trader	45	13.0%
	Farmer	78	22.0%
	Civil servants	24	7.0%
	Religious leaders	9	3.0%
	Total	354	100.0
Location	Rural	194	55.0
	Urban	160	45.0
	Total	354	100.0

Source: Author's Fieldwork, 2022

Table 4.1 displays the socio-demographic information about the survey participants.. The gender distribution of the respondents revealed that females made up 76.3 percent of the respondents while males made up 23.7 percent. The survey respondents' ages are distributed as follows: 35.0% are between the ages of 18 and 28; 42.0% are between the ages of 29 and 39; and 5.0% are 40 years of age or older. 59 percent of the respondents were single, 29 percent were married, and 12 percent were divorced, according to their marital status. According to the respondents' educational backgrounds, 40.4 percent had a primary school diploma, 45.5 percent had a secondary school diploma, and 29 percent had a higher education diploma. According to the respondents' reported religious affiliations, 79.4% of them were Christians, 15.5 % were Muslims, and 5.1 % practised African Traditional Religion. 56.0 percent of respondents were unemployed, followed by 13.0 percent of traders, 22.0 percent of farmers, 7 percent of civil servants, and 3 percent of religious leaders. Finally, the geographic distribution of the respondents showed that 45.0 percent of them resided in urban areas and 55.0 percent did not.

Hypothesis One

Female genital mutilation and child and maternal mortality do not significantly correlate positively.

Table 4.2 shows the results of a Pearson test to determine the association between infant and mother mortality and female genital mutilation

		Female genital mutilation	Infant and maternal mortality
Female genital mutilation	Pearson Correlation	1	.132**
	Sig. (2-tailed)		.000
	N	354	354
Infant and maternal mortality performance	Pearson Correlation	.132**	1
	Sig. (2-tailed)	.000	
	N	354	354

**. Correlation is significant at the 0.05 level (2-tailed).

As seen in table 4.2, the Pearson correlation coefficient, or r , is 0.132 and significant at ($p = 0.000$). This indicates a rejection of the null hypothesis. In conclusion, there is a strong correlation between infant and mother mortality and female genital mutilation.

The extensive interview discussion segments on the effects of female genital mutilation on mother and child during delivery demonstrated that female genital mutilation affects women during the period of delivery. The Federal Medical Center's medical staff claims that

CASE A:

The mother and child during delivery are seriously affected by female genital mutilation. It causes the mother to have a poor libido, remove too much labia mineral, and the mother's labia majora is affected. Due to the usage of unsterilized equipment, certain diseases may result. Finally cause significant bleeding during delivery, which may, in many instances, cause the child's death.

Another interviewee offered a like response, saying:

CASE B:

Female genital mutilation is linked to severe bleeding. Some of the health effects of female genital mutilation on mother and child include stillbirth and different health risks, such as HIV. Also, there have been situations documented when girls and women experience stigma as a result of uncontrolled urinating when they are adults.

Second hypothesis

Religious convictions and the practise of female genital mutilation do not significantly correlate favourably.

Table 4.3 shows the results of a Pearson test to determine the association between female genital mutilation and baby and mother mortality.

		Religious beliefs	Female genital mutilation
Religious beliefs	Pearson Correlation	1	.110 ^{**}
	Sig. (2-tailed)		.000
	N	354	354
Female genital mutilation	Pearson Correlation	.110 ^{**}	1
	Sig. (2-tailed)	.000	
	N	354	354

^{**}. Correlation is significant at the 0.05 level (2-tailed).

As seen in table 4.3, the Pearson correlation coefficient, or r , is 0.110 and significant at ($p = 0.000$). This indicates a rejection of the null hypothesis. The conclusion is that there is no conclusive evidence linking religious beliefs to the practise of female genital mutilation.

When asked about the impact of religion on the practise of female genital mutilation, interviewees stated in-depth that their religious beliefs either support or oppose the practise. A traditional birth attendant, for example, believed that:

CASE C:

FGM is supported by traditional religion because it is considered to be a part of the rituals that initiate young girls into womanhood in preparation for marriage. Some cultures in Africa place a lot of significance on marriage because it is regarded as sacred in that region. In marriage homes, women are circumcised to control their sexuality. This is because in some cultures, having an extramarital relationship is frowned upon and punishable by the gods.

Another interviewee stated the following:

CASE D:

Most importantly, culture and religion are the driving forces behind female genital mutilation in

rural areas. FGM/C is a mandatory rite of passage for young girls in many societies, and it is associated with a number of other traditional rites. Following the FGC process, these rites fall under the category of religious practises that confers the initiate with the blessings of the ancestors. Any family that chooses to forego this procedure is perceived to risk repercussions or social exclusion.

Results Discussion

According to the study's findings, infant and maternal mortality and female genital mutilation are significantly positively correlated. The births of women who had undergone genital mutilation were considerably more likely than those of women who had not to be complicated by caesarean section, postpartum haemorrhage, and prolonged maternal hospitalisation, according to Ogah, Kolawole, and Awelimobor (2019). A caesarean section delivery was 30% more likely to occur in women who had undergone type III genital mutilation, the most severe type, compared to women who had not. Comparatively to women who had not undergone genital mutilation, women with type III mutilation had a 70% higher risk of postpartum haemorrhage. The percentage of first-time mothers who required an episiotomy ranged from 41% of those who had type III genital mutilation to 88% of those who had not. The percentages were 14% and 61%, respectively, among pregnant women with prior deliveries.

Infants born to genital mutilated women had higher rates of infant resuscitation and perinatal death than infants born to mothers who had not undergone genital mutilation and the severity of the unfavourable outcomes grew as the severity of female genital mutilation did. As a result, the rate of resuscitation was 66% higher in type III mutilated women's infants than in women who had not undergone female genital mutilation. Infant mortality rates were 15% higher for women with type I genital mutilation, 32% higher for type II genital mutilation, and 55% higher for type III, compared to infants born to mothers without genital mutilation.

Female circumcision, also known as female genital mutilation or cutting (FGM/C), is an act in which the external female genitalia are completely or partially removed, or any other known injury to the female genital organs is caused for reasons other than therapeutic ones. Medical professionals have condemned this practise and deemed it to have no known medical benefits (Ogah, Kolawole, & Awelimobor, 2019). The annual cutting of millions of other girls from Sub-Saharan African, Middle Eastern, and Asian nations has been denounced by international health organisations as a violation of the reproductive and basic human rights of girls. FGM/C frequently causes severe bleeding, and using contaminated instruments during the procedure exposes the victim to the sex-transmitted diseases human papillomavirus (HPV), hepatitis B virus (HBV), and HIV. In addition to these negative effects, FGM/C can cause cysts, complications during childbirth, sexual dysfunction, and stillbirth (Millet et al., 2019). FGM/C survivors are more likely to experience depression and other mental health issues (Piroozi et al., 2020). Between 0 and 15 years old is the most dangerous age range, and 29 countries are the most common. In the Supplementary Data, a list of the nations is provided. Girls in developed nations and immigrant families whose parents arranged for their female children to return home for the exercise are also at risk (Kawous, et al., 2020).

Conclusion

According to the study, female genital mutilation practise complicates childbirth for both mother and baby. It is the leading cause of death for women and young girls who were forced to undergo the procedure in the name of tradition in Delta State of Nigeria. When the hymen is not properly severed and an infectious disease is contracted during the procedure, the mother and child are put at risk for harm to their health. Religious beliefs and practices are used to reinforce the practice and perpetuate it in the state especially in local communities where traditional religious beliefs of control of promiscuity hold sway. Young girls and married women are subjected to this practice and this has not brought any good outcome to the parties involved, their families and the society at large.

Recommendations

There should be continuous campaigns against the practice of female genital mutilation most importantly in local communities. Community heads and leaders should be involved and encouraged to help educate their followers of the consequences of involvement and practice of female genital mutilation. This way, they will be able to tackle the problem from the root as they will be listened to being the custodians of the law and custom of the land. Proper enlightenment will also help to demystify the religious myth tied around the practice, which in essence have no implication in any way on the part of those who did not take part in the practice. Taking the campaign to the rural areas will help to tackle many aspects of the practice and aid in its gradual eradication from society.

References

1. Abdulah, D.M., Sedo, B.A., & Dawson, A. (2019). Female genital mutilation in rural regions of Iraqi Kurdistan: a cross-sectional study. *Public Health Reproduction*. 134 (5), 514–521.
2. Adegoke, P. (2005). Female genital mutilation: An African humanist view. Ibadan University Humanist Society.
3. Ahmed, H.M., Shabu, . S.A., & Shabila, N.P. (2019). A qualitative assessment of women's perspectives and experience of female genital mutilation in Iraqi Kurdistan Region, *Basic Medical Childand Womens Health*, 19 (1), 66-69.
4. Ali, A., Arafa, A.E. El Fattah, N.A. Abd Allah Shehata, D., & Fahim, A.S. (2018). Prevalence of female circumcision among young women in Beni-Suef, Egypt: a cross-sectional study, *Journal of Pediatric Adolescent Gynecological* 31 (6), 571–574.
5. Biglu, M. H. . Farnam, A., Abotalebi, P. Biglu, M., & Ghavami, S. (2016).Effect of female genita mutilation/cutting on sexual functions, *Sexual Reproduction Health* 10, 3–8.
6. Chai, X., Sano, Y., Kansanga, M., Baada, J., & Antabe, R. (2017). Married women's negotiation for safer sexual intercourse in Kenya: does experience of female genital mutilation matter? *Sexual Reproductive Health*,14, 79–84.
7. Chukuezi, C. (2010). Socio-cultural factors associated with maternal mortality in Nigeria. *Research Journal of Social Sciences*, 1(5), 22-26.
8. Demographic Health Survey (2013). *Infant mortality issues in Nigeria*. Macmillan.
9. Esienumoh, E. E., Akpabio, I. I., & Etowa, J. B. (2016). Cultural diversity in childbirth practices in a rural community in Southern Nigeria. *Journal of Pregnancy and Child Health*, 3, 280. doi:10.4172/2376-127X.1000280.
10. Evans, E. C. (2013). A review of cultural influence on maternal mortality in the developing world. *Midwifery*, 29(5), 490-496. doi:10.1016/j.midw.2012.04.002.
11. Hao, C. (1990). An analysis of discrepancies in China's child mortality rate. *China Journal of Population Studies*, 3, 11-15.
12. Hathout, H. M. (2016). Some aspects of female circumcision. *Journal of Obstetrics Gynecology of the British Empire.*, 70, 505–7.
13. Jordal, M., & Wahlberg, A. (2018). Challenges in providing quality care for women with female genital cutting in Sweden. A literature review. *Sexual Reproductive Health*, 17, 91–96.
14. Kawous, R., Van Den Muijsenbergh, M.E.T.C. Geraci, D. Van Der Kwaak, A. Leye, E. Middelburg, A. Ortensi, L.E. & Burdorf, A. (2020). The prevalence and risk of female genital mutilation/cutting among migrant women and girls in the Netherlands: an extrapolation method, *Public Library of Science*, 15 (4) 023-0919.

15. Lang-Baldé, R., & Amerson, R. (2018). Culture and birth outcomes in Sub-Saharan Africa: A review of literature. *Journal of Transcultural Nursing*, 1-8. doi.10.1177/1043659617750260.
16. Marchie, C. L. & Anyanwu, F. C. (2009). Relative contributions of socio-cultural variables to the prediction of maternal mortality in Edo South Senatorial District, Nigeria. *African Journal of Reproductive Health*, 13(2), 109-115.
17. Mayer, E., & Sarin, A. (2000). *An assessment of some mechanisms linking economic inequality and infant mortality*. Harris School of Public Studies. University of Chicago Press.
18. Mberu, B. U. (2017). *Female genital mutilation/cutting in Nigeria: A scoping review*. Retrieved from https://www.popcouncil.org/uploads/pdfs/2017RH_FGMCNigeriaScopingReview.pdf.
19. Mesike, C., & Mojekwu, J. (2012). Environmental determinants of child mortality in Nigeria. *Journal of Sustainable Development*, 5, (1), 5-9.
20. Millet, P. Vichant, M. Sharifzadehgan, S. Vieillefosse, S. Hatem-Gantzer, G. & Deffieux, X. (2019). Lower urinary tracts symptoms after female genital mutilation: a review, *Programme of Utility and Environment*, 29 (4), 209–215.
21. Mondal, N. (2009). Factor influencing infant and child mortality: A case study of Rajshahi district, Bangladesh. *Journal of Human Ecology*, 26 (1), 31-39.
22. Odoi, AT. (2015). *Female genital mutilation*. Graphic Packaging Ltd.
23. Odukogbe, A.T.A Afolabi, B.B. Bello, O.O. & Adeyanju, A.S. (2017). Female genital mutilation/cutting in Africa, *Transl. Androl. Urol.* 6 (2), 138–148.
24. Odekunle, F. F. (2016). Maternal mortality burden: The influence of socio-cultural factors. *International Journal of Health Sciences and Research*, 6(12), 316-324.
25. Ogah, J., Kolawole, O., & Awelimobor, D. (2019). High risk human papilloma virus (HPV) common among a cohort of women with female genital mutilation. *African Health Science*. 19 (4), 2985–2992.
26. Ogu, R. N., Agholor, K. N., & Okonofua, F. E. (2016). Engendering the attainment of the SDG-3 in Africa: Overcoming the socio-cultural factors contributing to maternal mortality. *African Journal of Reproductive Health*, 20(3), 62-74.
27. Olusegun, L. (2012). Curbing maternal and child mortality: The Nigerian experience. *International Journal of Nursing and Midwifery*, 4(3), 33-39. ISSN 2141-2499.
28. Onoka, C. (2010). *Measuring catastrophic health care expenditures in Nigeria: Implications for financial risk protection*. Macmillan Press.
29. Piroozi, B., Alinia, C Safari, H., Kazemi-Karyani, A Moradi, G., Farhadifar, F. Yousefi, F Mohamadi, A. Bolbanabad, D., & Azadnia, A. (2020). Effect of female genital mutilation on mental health: a case-control study, *European. Journal of Contraceptives in Reproduction Health Care*, 25 (1) 33–36.
30. United Nations Children's Fund (UNICEF 2013). *Female Genital Mutilation/Cutting: A statistical overview and exploration of the dynamics of change*. New York, NY: UNICEF.
31. Uthman, O. (2008). A population-based study of effect of multiple births on infant mortality in Nigeria. *BMC Pregnancy and Childbirth*.
32. Verzin, J. A. (2015). Sequelae of female circumcision. *Trop Doct.* 163–169.
33. World Health Organization. (2006). *Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population*

Division. Geneva, Switzerland: World Health Organization; 2015.

34. WHO (2007). Elimination of FGM in Nigeria. Plot 617/618 diplomatic drive, Central District Abuja. Family Health Department, Federal Ministry of Health Phase II Federal Secretariat Abuja.
35. World Health Organization (2010). Female genital mutilation. *Fact sheet No. 241*. Jun, [Last accessed on 2008 Nov 2]. Available from: <http://www.who.int/mediacentre/factsheets/fs241/en/>.
36. Yoder, P. S., & Khan, S. (2017). *Numbers of women circumcised in Africa: The production of a total*. Macro International Inc.
37. TOOMANY (2016). Country profile: FGM in Nigeria. Retrieved from https://www.28toomany.org/static/media/uploads/Country%20Images/PDF/nigeria_count_ry_profile_-_final.compressed.pdf.